

## ABSTRACT

5 A semiconductor structure comprises a buried first  
semiconductor layer of a first doping type, a second  
semiconductor layer of the first doping type on the buried  
semiconductor layer, which is less doped than the buried  
first semiconductor layer, a semiconductor area of a second  
10 doping type on the second semiconductor layer, so that a pn  
junction is formed between the semiconductor area and the  
second semiconductor layer, and a recess present below the  
semiconductor area in the buried first semiconductor layer,  
which comprises a semiconductor material of the first  
doping type, which can be less doped than the buried first  
15 semiconductor layer and has a larger distance to the  
semiconductor area of the second doping type on the second  
semiconductor layer, such that the breakdown voltage across  
the pn junction is higher than if the recess were not  
provided. Thereby, it is achieved that both a semiconductor  
20 structure with a desired breakdown voltage as well as a  
further semiconductor structure without this recess can be  
generated in the buried first semiconductor layer with  
optimized HF properties.

25 Figure 1

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